AF/1621

PATENT APPLICATION
Mo6284
LeA 32,990

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF JURGEN HEUSER ET AL SERIAL NUMBER: 09/807,851 FILED: APRIL 19, 2001 TITLE: PHOSGENE WITH POOR CARBON TETRACHLORIDE CONTENT	GROUP NO.: 1621 EXAMINER: S. A. WITHERSPOON

LETTER

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed herewith are three copies of an Appeal Brief in the matter of the subject Appeal. Please charge the fee for filing the Brief, $320.00, to our Deposit Account Number 13-3848.

Respectfully submitted

By _____
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an enveloped addressed to: Commissioner for Patents, Alexandria, VA 22313-1450 4/16/04
Date
Aron Preis, Reg. No. 29,426
Name of appellant, assignee or Registered Representative
Signature
April 16, 2004
Date

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APPEAL BRIEF

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Brief, submitted in triplicate, is an appeal from the Final Office Action dated November 14, 2003, rejecting Claims 2-5 and 8.

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I. REAL PARTY IN INTEREST

This application was assigned to Bayer AG by the named inventor prior to filing in the U.S. Patent and Trademark Office. Bayer MaterialScience AG that on January 1, 2004 became the successor to the relevant business of Bayer AG is therefore the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

Appellant is unaware of other appeals or interferences that will directly affect or be directly affected by, or have bearing on the present appeal.

III. STATUS OF CLAIMS

Claims 2-5 and 8 all the claims in the application, are pending but stand rejected; these claims are the subject claims of this appeal.

IV. STATUS OF AMENDMENTS

No response was filed after final rejection.

V. SUMMARY OF THE INVENTION

The invention embodied in Claims 2, 3, 4 and 8 is directed to a process for producing phosgene having low concentration of carbon tetrachloride (herein CCL_4) . The process entails reacting carbon monoxide with chlorine in the presence of elemental carbon. Critical to the inventive process are the recited process parameters of temperature and pressure that characterize of the gas stream emerging from the reactor. The invention resides in the findings that the effectiveness of the process in producing phosgene having low concentration of CCL_4 depends on these parameters.

Claim 5 is directed to an embodiment where the carbon monoxide is characterized by its methane content.

VI. ISSUES

I. Does WO 97/30932 (Cicha) render Claims 2-4 and 8 unpatentable under 35 U.S.C. 103(a)?

II. Does Cicha in view of U.S. Patent 4,231,959 (Obrecht) render Claim 5 unpatentable under 35 U.S.C. 103(a)?

VII. GROUPING OF CLAIMS

The claims do not stand or fall together. Claim 5 may be patentable over the cited art even if Claims 2-4 and 8 were deemed unpatentable.

VIII. ARGUMENTS

I. A prima facie case of obviousness relative to Claims 2-4 and 8 has not been made by Cicha.

The Courts have long imposed the burden on the Office to produce factual evidence to indicate that the claimed invention is *prima facie* obvious. *In re* Peehs, 204 USPQ 835 (CCPA 1980). In the absence of such factual evidence the rejection is improper and must be overturned. *In re* Lunsford, 148 USPQ 721 (CCPA 1966).

The prima facie obviousness case requires the teaching in the prior art to be sufficient for the art-skilled having the reference before him to make the proposed substitution, combination or other modification. *In re* Lintner, 173 USPQ at 562. (1972).

The burden for establishing the prima facie case is on the Office. Only when such has been accomplished the burden of coming forward with rebuttal evidence shifts to the applicants. Conversely, if examiner fails to produce a *prima facie* case of unpatentability, the applicant is entitled to the patent.

Cicha disclosed a process for the manufacture of phosgene comprising contacting a mixture of carbon monoxide and chlorine with carbon. Key to Cicha's process is the

purity of the carbon and its oxidative stability. There is nothing in Cicha relative to any pressure parameter. As such Cicha falls short of the prima facie case and the rejection alleging obviousness based thereon is clearly untenable.

In the course of prosecution the Examiner noted that Cicha does not disclose pressure at all and therefore assumed that Cicha's process is conducted at standard pressure (101 kPa). Curiously the Examiner then asserted that the claims that recite a considerably higher pressure are rendered obvious "absent a showing of unexpected superior results".

Appellants respectfully assert that in the absence of the prima facie case, they are not compelled to produce evidence to rebut the allegation of obviousness.

The Examiner further asserted that the difference between Cicha's presumed pressure of 101 kPa and the claimed pressure (120 -400 kPa) "is minimal" and "within the experimental range". Appellants take exception to the assertion. The Examiner offered no rational basis for thus dismissing the significant difference in pressure.

In the course of prosecution the Appellants produced evidence -the Kauth Declaration – to the effect that the working examples in their application point to the criticality of pressure in the claimed process. This relationship between the process parameters and purity have not been disclosed or suggested by the cited art.
In criticizing the Declaration the Examiner's contends that appellants have "not shown any correlation between an increased pressure ... and reduced carbon tetrachloride content".

Appellants note once more than the cited art and the rejection based thereon form no legal basis or justification for the requirement to produce further data as proposed by the Examiner.

II. The disclosure of Cicha view of Obrecht fails to describe the invention embodied in Claim 5.

Claim 5 is directed to a process for producing phosgene having low concentration of CCL_4. The process entails reacting carbon monoxide having methane content of, at most 50 ppm, with chlorine in the presence of elemental carbon. The inventive process is further characterized in the temperature and pressure parameters describing the gas stream emerging from the reactor.

Cicha was discussed above and its shortcomings in the present context noted. Also, as noted by the Examiner, Cicha does not disclose the limitation thus recited.

Obrecht disclosed producing phosgene by reacting presently relevant reactants in a reaction zone to produce a product that contains phosgene and un-reacted carbon monoxide and then separating substantially all the phosgene from the un-reacted carbon monoxide and recycling at least a portion of the un-reacted carbon monoxide to the reaction zone. Obrecht provides no information relative to the criticality of pressure nor does it disclose the presently claimed methane content.

Recognizing the later, the Examiner pointed to Obrecht's disclosure of carbon monoxide that contained 0.12 mole percent of methane, yet failed to explain why or how the concentration of 0.12 mole percent of methane describes or suggests the presently claimed "at most 50 ppm."

It is not clear why or how the Obrecht and Cicha disclosures might be combined at all, and much less for the combination to result in the presently claimed process.

IX. CONCLUSION

Appellants submit that each of the Examiner's rejections is in error and respectfully request that the rejection be reversed and that Claims 2-5 and 8 be allowed.

Respectfully submitted,

By 

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/jme/AP/AP0472

APPENDIX: CLAIMS ON APPEAL

2. A process for producing phosgene which is low in carbon tetrachloride by the reaction of carbon monoxide with chlorine in the presence of elemental carbon in a reactor, characterized in that the gas stream emerging from the reactor is at a temperature of 30 to 80°C and is under a pressure of 120 to 400 $kPa_{abs.}$ as measured directly downstream of the phosgene generator.

3. A process according to Claim 2, characterized in that the gas stream emerging from the reactor is at a temperature of 40 to 70°C.

4. A process according to Claim 2 characterized in that the gas stream emerging from the reactor is under a pressure of 300 kPa_{abs} at most.

5. A process according to Claim 2 characterized in that the methane content of the carbon monoxide is 50 ppm at most.

8. In the process for producing phosgene by reacting carbon monoxide with chlorine the improvement comprising carrying out the reaction in the presence of elemental carbon, restricting the gas stream emerging from said reactor to a temperature of 30 to 80°C to a pressure of 120 to 400 kPa_{abs} as measured directly downstream from said reactor, said phosgene characterized in having a content of carbon tetrachloride that is less than 150 ppm.